APPENDIX B

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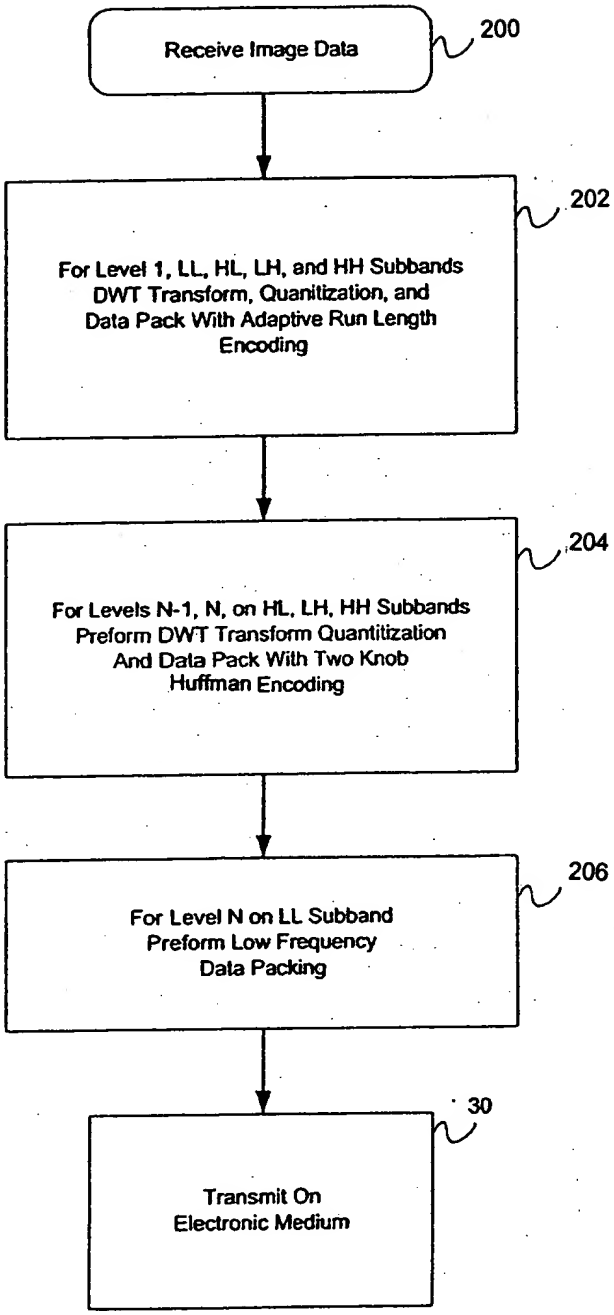

Receive Image Data
200
For Level 1, LL, HL, LH, and HH Subbands DWT Transform, Quantization, and Data Pack With Adaptive Run Length Encoding
202
For Levels N-1, N, on HL, LH, HH Subbands Preform DWT Transform Quantitization And Data Pack With Two Knob Huffman Encoding
204
For Level N on LL Subband Preform Low Frequency Data Packing
206
Transmit On Electronic Medium
30

FIG. 3

```
Q=fix(abs(W)./cr).*sign(W)

W'=(abs(Q)+0.5).*cr.*(sign(Q))
```

Q:	Quantized coefficient
W:	Original wavelet coefficient
CR:	User defined compression parameter
W':	De-quantized coefficient
Fix:	Truncates value
Abs:	returns magnitude of value
Sign:	Return the sign of the number, Returns zero if the value is zero

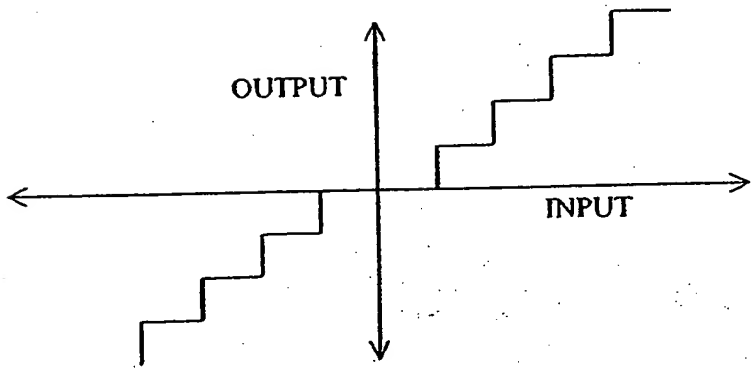


FIG. 7

Value	Code word
0	0
1	100
-1	101
2	1100
-2	1101
3	11100
-3	11101
4	1111000
-4	1111001
5	11110100
-5	11110101
6	11110110
-6	11110111
7	11111000
-7	11111001
8	111110100
-8	111110101
9	111110110
-9	111110111
10	111111000
-10	111111001
11	111111010
-11	111111011
12	1111111000
-12	1111111001
13	1111111010
-13	1111111011
14	1111111100
-14	1111111101
15	1111111110
esc	1111111111

FIG. 10

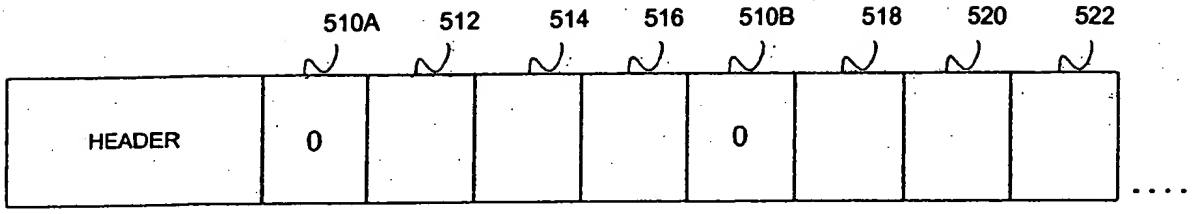


FIG. 12A

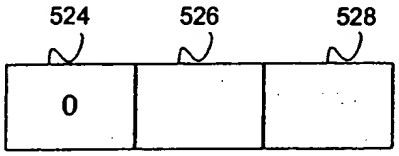


FIG. 12B

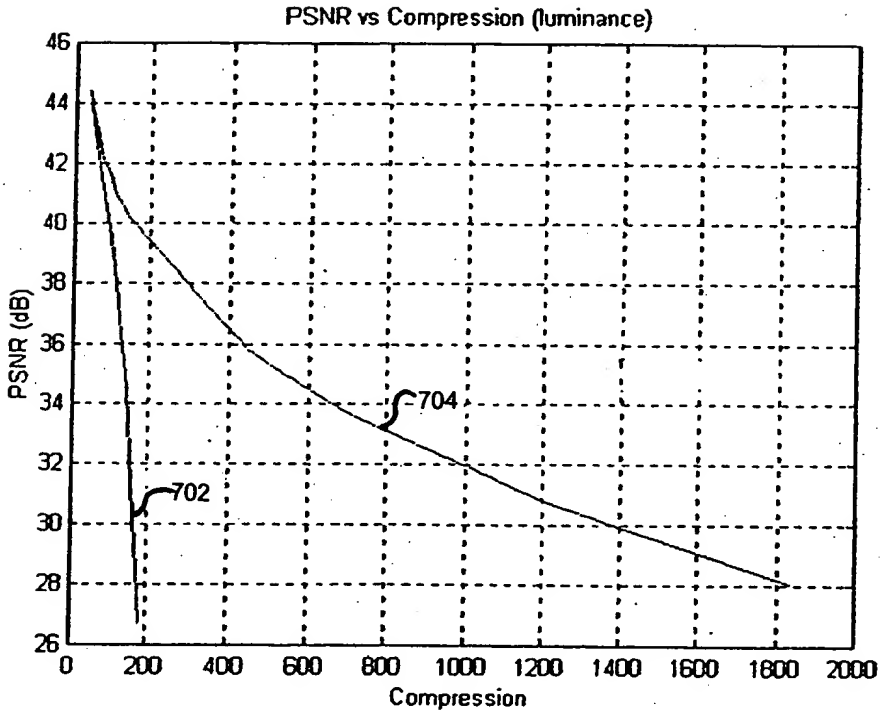
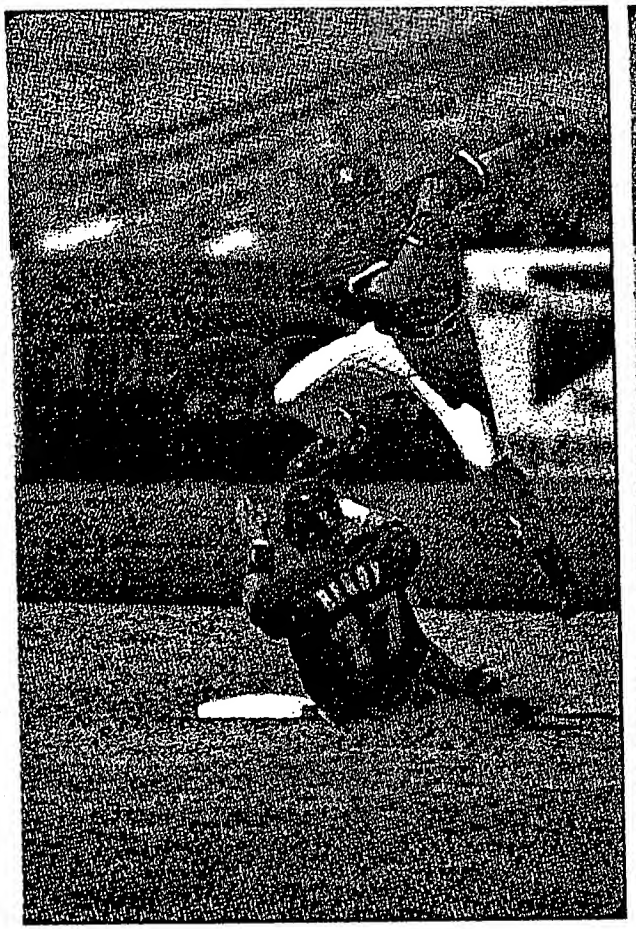
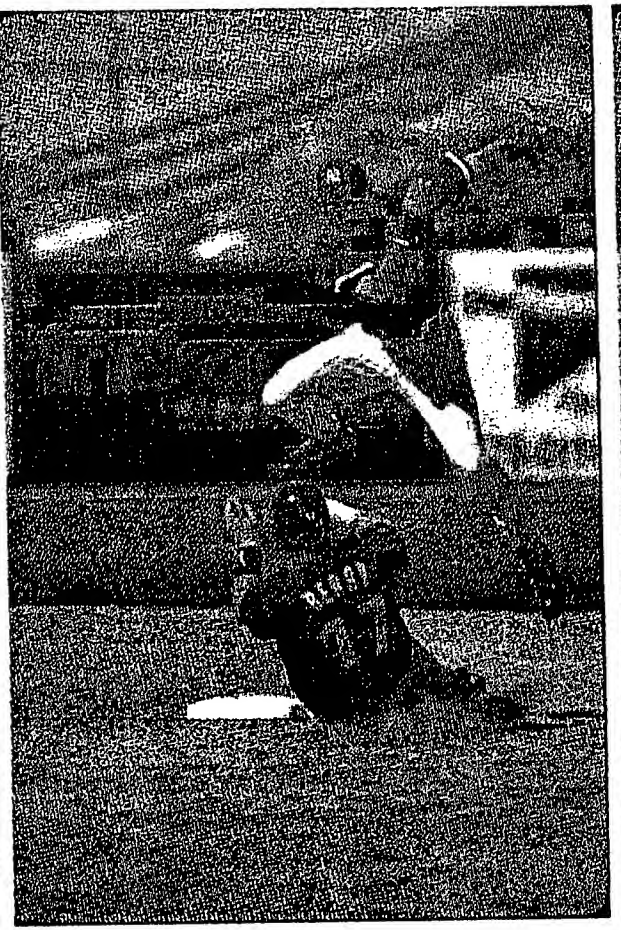

PSNR vs Compression (luminance)
PSNR (dB)
Compression
46
44
42
40
38
36
34
32
30
28
26
0
200
400
600
800
1000
1200
1400
1600
1800
2000
702
704

FIG. 17



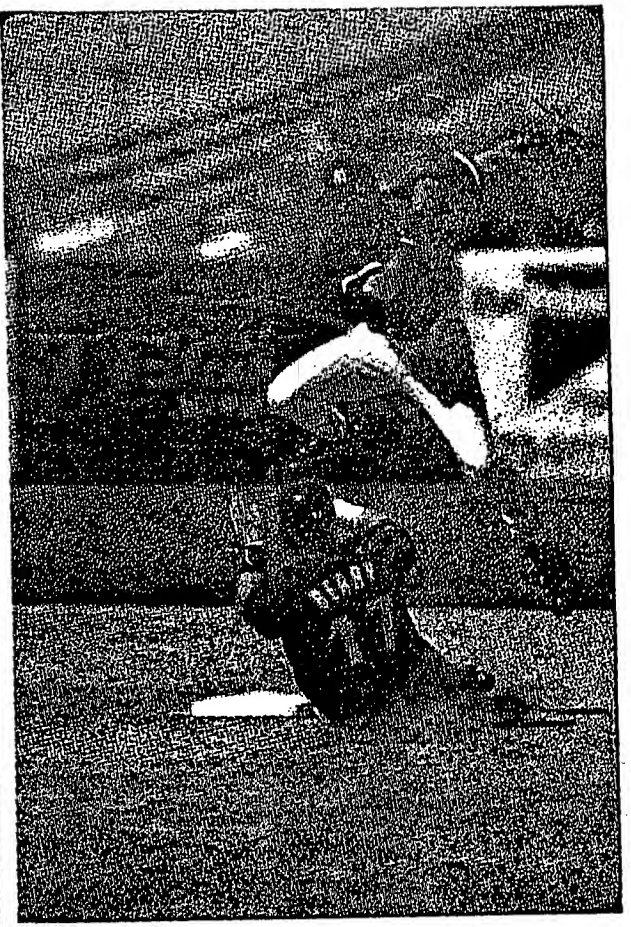
Original

FIG. 18A



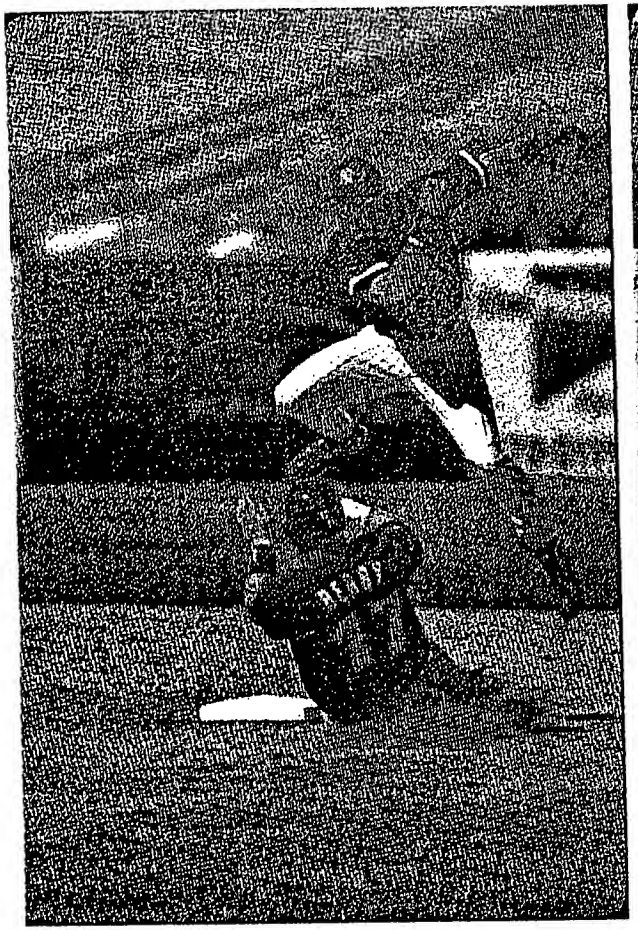
JPEG 77:1

FIG. 18B



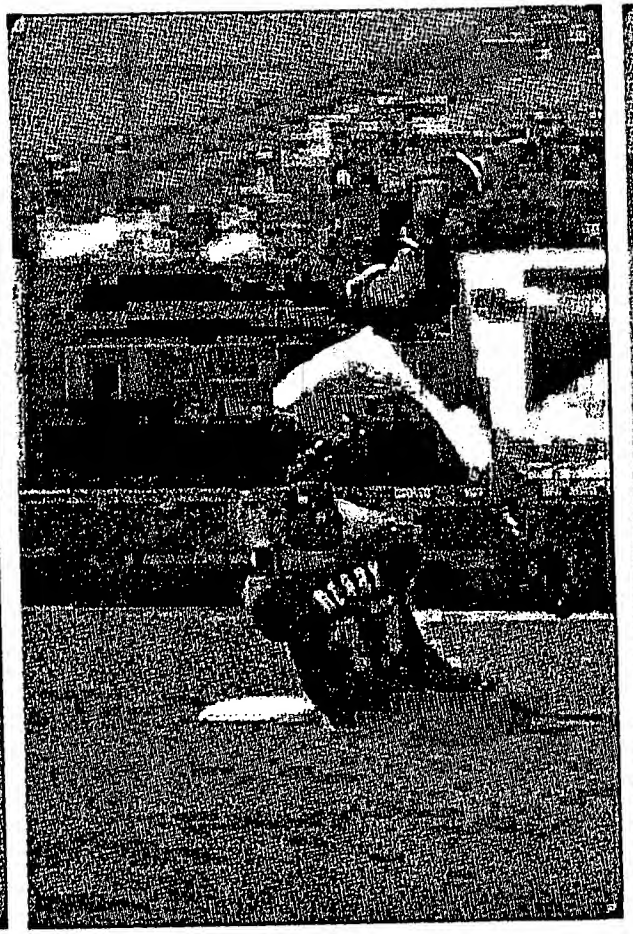
162:1

FIG. 18C



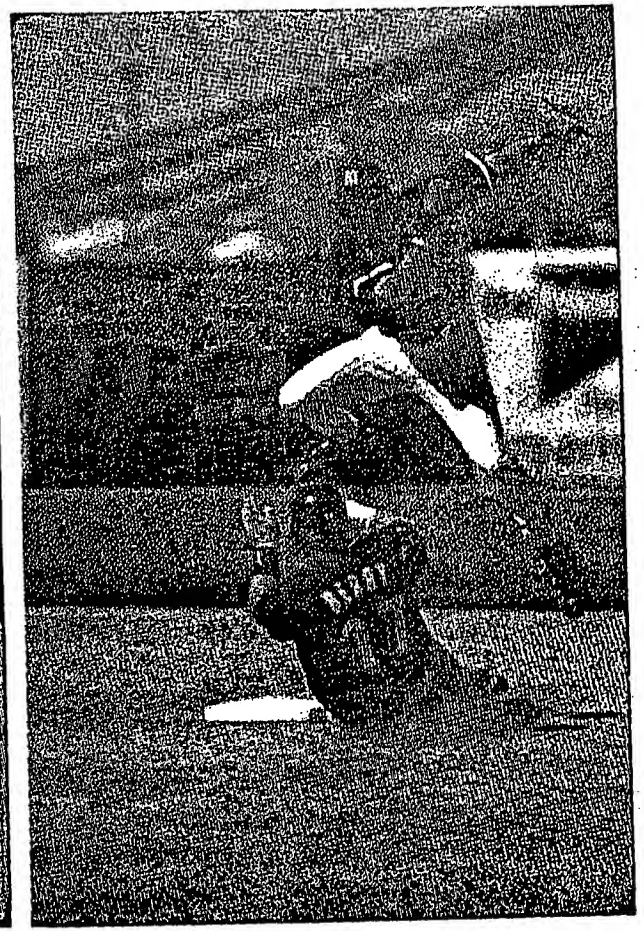
Original

FIG. 19A



JPEG 163:1

FIG. 19B



162:1

FIG. 19C

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